collet is then to be secured either by screw or otherwise to the inside of the upper end of the second section of the outer tube or case, which will prevent the inner tube or key that turns the propeller, from having any lateral motion; but will permit it to revolve with the upper part of the case to which it is connected; and by turning which (the lower section being held firm,) the propeller will move either up or down. It is for the above new arrangement and simplification of the parts, by which a cheaper, more convenient and durable instrument may be formed, that I claim a patent for a new and useful improvement on Mordan's patent ever pointed pencil case.

Joseph Saxton.

Fig. 1.

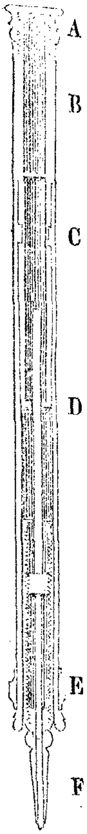
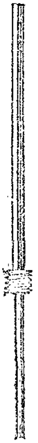


Fig. 2.



Description of the Drawing.—Fig. 1. A longitudinal section of the case.

Fig. 2. The propeller, with its screw; the upper part of the propeller being formed of square wire.

A. Cap which screws on and closes the chamber for the spare pencils, and retains B in its place.

B. The part which is to be turned round to advance the pencil.

C. Collet which is soft soldered to the outer tube, but allows the inner tube or plug, to revolve when the part B is turned.

D. The lower end of the brass tube or plug, with a square hole in a piece which closes its end, through which the propeller slides.

E. The slide which retracts the point F, which point is screwed into the sliding tube; within this the female screw is shown, and the male screw of the propeller.

Mr. Philip Garret, watch maker of Market street, Philadelphia, is the proprietor of the above patent, and manufactures the cases.

Specification of a patent for an improvement in forming the Nap upon Woollen Cloths. Granted to Zachariah Allen, *Providence, Rhode Island, February 2nd,* 1830.

This improvement consists in extending the cloth, upon which it may be required to raise a nap, very smoothly and firmly over a solid arbor, or edge, and in causing the wires, or cards, set in a cylinder, to act only upon that portion of the cloth which is passing in actual contact around, or over, the solid arbor or edge; thus bringing the wires to act by a gauge or screw with accuracy and certainty upon all parts of the face of the cloth, and at the same time to penetrate no farther or deeper into the texture of the fabric, than may be found proper to raise a nap without injuring the texture of the cloth.

The improvement herein claimed consists in causing the wires to act upon a portion of the surface of the cloth extended smoothly over a solid body, so that every part of the cloth, thus extended on a hard surface or solid body, may be brought under the action of the wires without a possibility of retracting therefrom, or bagging in the looser parts, and without having some portions of it more intensely acted upon than others, whereby the nap is not only unequally raised, but the cloth itself is subject to be chafed through and damaged, as is the case when it is attempted to raise a nap otherwise than when extended upon a hard, smooth surface or cushion.

Zachariah Allen.

Specification of a patent for Tightening Leaky Dams, and so constructing new dams as to secure them from leaking. Granted to John M. Syme, *Richmond, Henrico County, Virginia, February 22nd,* 1830.

In tightening a dam already built, an encasement, or work of plank and posts, is to be constructed the whole length thereof, reaching from the bottom of the stream to the top of the dam. The posts which secure this encasement are bolted to the works in the bottom of the stream, or otherwise effectually secured, and connected with the dam by strong ties. The space between the planking and the dam may be one foot, or more, according to circumstances, and is to be filled into the top with clay, or other proper materials, which must be well puddled and secured throughout; it is then to be closely sheeted over so that the puddling cannot be washed out or disturbed by the current passing over the dam.

In constructing a new dam, (in which case the expense will be considerably lessened,) the same plan is to be pursued. The puddling completely and effectually prevents the escape of water through the dam, and thus all the small particles which are usually carried through the interstices or crevices in the dam, with the small, but powerful currents of water passing through them, are lodged on its upper side, or face, and forced into these interstices by the great pressure of the water, and in a short time render the dam so compact, solid, and impermeable, as, after a time, perfectly to secure it, in all probability, from leakage, as long as the materials of the dam last, even if the encasement should be injured or destroyed. I claim as new and original the whole of the above described mode of tightening leaky dams, and so constructing new dams as to secure them from leaking.

John M. Syme.